INDEX

Acetylcholine, 11, 63, 179, 189, 197
——, central nervous system and, 179
——, neuromuscular transmission and, 189
——, synaptic transmission and, 197
Activity, cholinesterase, 235
——, convulsive, 105
——, cortical, 125, 409
——, electrical, in decerebrate rigidity, 89
——, ——, effects of fluoroacetate on, 105
——, ——, in frog spinal cord, 223
——, spinal, brain stem facilitation of, 331
Action potential. See Potential, action
——, reflex, after anesthesia, 349
Adrenaline, inhibitory action of, 167
——, synaptic action of, 167
Anemia, cortical, effects of, 409
Anesthesia, effects of, on monosynaptic pathway, 349
Anoxia, effects of, on monosynaptic pathway, 349
Anticholinesterase, 1, 179, 235, 429
——, central nervous system and, 179
——, block produced by, 429
ARROWOOD, J. G. See SARNOFF, S. J., 205
Asphyxia, brain, blood pressure changes in, 361
——, EEG after, 361
——, effects of, on monosynaptic pathway, 349
Axoplasm, viscosity changes in, 211

BACH, L. M. N. and MAGOUN, H. W. The vestibular nuclei as an excitatory mechanism for the cord, 331
BARKER, S. H. and GELLHORN, E. Influence of suppressor areas on afferent impulses, 133
Block, nerve, 383, 395
——, nerve conduction, 429
Blood pressure, effect of stimulation of cingular gyrus on, 371
BRONK, D. W. See LARRABEE, M. G., 139
BROOKS, C. McC. and ECCLES, J. C. Electrical investigation of the monosynaptic pathway through the spinal cord, 251
——, and ——. A study of the effects of anaesthesia and asphyxia on the mono-synaptic pathway through the spinal cord, 349
BULLOCK, T. H., GRUNDFEST, H., NACHMANSOHN, D. and ROTHENBERG, M. A. Effect of di-isopropyl fluorphosphate (DFP) on action potential and cholinesterase of nerve. II, 63
——, ——, ——, and ——. Generality of the role of acetylcholine in nerve and muscle condition, 11

CASE, T. J. See FUNDERBURK, W. H., 179
Cat, action potentials of spinal cord, 339
——, adrenergic synaptic inhibition, 167
——, brain asphyxiation, 361
——, decerebrate rigidity, 89, 331
——, effect of parasympathetic drugs, 179
——, effect of sodium fluoroacetate, 105
——, facilitation of synaptic excitation, 139
——, influence of suppressor areas on afferent impulses, 133
——, monosynaptic pathway, 251, 349
——, reflex development, 415
——, retina, 295, 303
——, vestibular nuclei, 331
CHADWICK, L. E. and HILL, D. L. Inhibition of cholinesterase by di-isopropyl fluorophosphate, physostigmine and hexaethyl tetraphosphate in the roach, 235
CHANG, H.-T., RUCH, T. C. and WARD, A. A., JR. Topographical representation of muscles in motor cortex of monkeys, 39
Cholinesterase, 1, 63, 155, 179, 189, 197, 235, 429
Cingular gyrus, stimulation of, 371
Color sensitivity. See Sensitivity, color
Conduction block, 323, 429
——, muscle, 11, 383, 395
——, nerve, 11, 383, 395
——, synaptic, cockroach, 1
Coordination, motor, cerebral regulation of, 275
Cortex, cerebral, depression of activity in, 409
——, ——, stimulation of, 409
——, motor, muscles in, 39
——, sensorimotor, transection of, 275
Crayfish, giant nerve fiber system, 23

Decerebrate rigidity. See Rigidity, decerebrate
Di-isopropyl fluorphosphate (DFP), 11, 63, 155, 235, 429
——, inhibition of cholinesterase by, 235, 429
Dog, cingular gyrus, stimulation of, 371
——, reflex development, 415
Drugs, effect of, on eyelid reflex, 415
——, ——, on root potentials, 323
——, parasympathetic, effect of, on conditioned response, 179

ECCLES, J. C. Acetylcholine and synaptic transmission in the spinal cord, 197

——. See Brooks, C. McC., 251, 349
Electrocorticogram, 125, 133
Electroencephalogram after brain asphyxiation, 361
—— of spinal cord, frog, 223
Endplate potential. See Potential, endplate
Eserine, effect of, on nerve, 429
Excitation, synaptic, 139

Facilitation of synaptic excitation, 139
—— of movement, 331
Fillenz, M. and Hanafin, M. Acetylcholine and neuro-muscular transmission, 189
Flaig, J. V. Viscosity changes in axoplasm under stimulation, 211
Fluoroacetate, convulsive activity induced by, 106
Frontal lobe. See Lobe, frontal
Funderburk, W. H. and Case, T. J. Effect of parasympathetic drugs on the conditioned response, 179

Gellhorn, E. Effect of afferent impulses on cortical suppressor areas, 125
——. See Barker, S. H., 133
Gerard, R. W. See Kuffler, S. W., 383
Gernandt, B. Colour sensitivity, contrast and polarity of the retinal elements, 303
——, and Granit, R. Single fibre analysis of inhibition and the polarity of the retinal elements, 295
Granit, R. See Gernandt, B., 295
Grundfest, H., Nachmansohn, D. and Rothenberg, M. A. Effect of diisopropyl fluorphosphate (DFP) on action potential and cholinesterase of nerve. III, 155
——. See Bullock, T. H., 11, 63
Gyrus cinguli. See Cingular gyrus

Hanafin, M. See Fillenz, M., 189
Hill, D. L. See Chadwick, L. E., 235
Hyperexcitability, anoxial, 349
Hypothalamus, frontal projections on, 309

Impulses, afferent, effect on cortical activity, 125
——, ——, influence of suppressor areas on, 133
Inhibition, adrenergic synaptic, 167
——, retinal, 295
Innervation of muscle fibers, 383, 395

Kennedy, N. K. See Roeder, K. D., 1
Koopman, L. J., See ten Cate, J., 223
Kremer, W. F. Autonomic and somatic reactions induced by stimulation of the cingular gyrus in dogs, 371
Kuffler, S. W. and Gerard, R. W. The small-nerve motor system to skeletal muscle, 383
——, Laporte, Y. and Ransmeier, R. E. Function of the frog's small-nerve motor system, 395

Langenskiöld, A. and Rexed, B. Injury potentials at different levels of cross-section of spinal cord, 121
Laporte, Y. See Kuffler, S. W., 395, and Walker, S. M., 79
Larrabee, M. G. and Bronk, D. W. Prolonged facilitation of synaptic excitation in sympathetic ganglia, 139
Leão, A. A. P. Further observations on the spreading depression of activity in the cerebral cortex, 409
Lobe, frontal, projection of, 309
——, ——, removal of, 57

McCouch, G. P. Reflex development in the chronically spinal cat and dog, 425
McCulloch, W. S. See Ward, A. A., Jr., 309
Magoun, H. W. See Bach, L. M. N., 331
Marrazzi, A. S. and Marrazzi, R. N. Further localization and analysis of adrenergic synaptic inhibition, 167
Marrazzi, R. N. See Marrizzi, A. S., 167
Monkey, decerebrate rigidity, 89
——, frontal lobe projection, 309
——, hypothalamus, 309
——, muscles in motor cortex, 39
——, prefrontal lobe removal, 57
——, regulation of motor coordination, 275
——, vagal stimulation, 315
Moruzzi, G. Tectal and bulbopontine eyelid reflexes and mechanism of the sleeping attitude of the acute thalamic pigeon, 415
Motoneurones, eyelid, 415
Muscle, acetylcholine in, 11
——, innervation of, 383, 395
——, in motor cortex, 39
——, semitendinosus, 79, 383, 395
——, skeletal, motor system to, 383, 395

Nachmansohn, D. See Bullock, T. H., 11, 63, and Grundfest, H., 155
Nerve, afferent vagus, 315
——, anticholinesterase activity in, 429
——, cholinesterase of, 11, 63, 155
——, DFP and, 11, 63, 155, 429
——, peripheral, injury potentials along, 114
——, sciatic, and DFP, 11, 63, 155, 429
——, stimulation of, 339
——, superior cervical, and DFP, 63, 155
—— fibers, 1, 23, 113

—— ——, injury potentials and, 113
Nervous system, central, crustacean, 323
——, ——, effect of drugs on, 179
Neuromuscular transmission, 79, 189
—— ——, acetylcholine and, 189
Nuclei, Vestibular, 331

Polarity, retinal, 295, 303
Potassium, effects of, 79
Potential, action, DFP and, 11, 63, 155
——, ——, spinal cord, 339
——, endplate, potassium and, 79
——, injury, 113, 121
——, root, 323
——, small-fiber junctional, 383, 395

Rabbit, cerebral cortex, 409
RANSMEIER, R. E. See KUFFLER, S. W., 395
Reflexes, order of emergence of, in spinal animal, 415
——, tectal and bulbopontine eyelid, 415
Respiration, effect of stimulation of cingular gyrus on, 371
——, effect of vagal stimulation on, 315
Response, conditioned, effect of drugs on 179
——, delayed, 57
——, electrical, of synapses, 251
——, respiratory, 315
Retina, polarity of, 295, 303
REXED, B. Injury potentials along peripheral nerves in relation to histological structure, 113
——, See LANGENSKIÖLD, A., 121
Rigidity, decerebrate, 89, 331
ROEDER, K. D., KENNEDY, N. K. and SAMSON, E. A. Synaptic conduction to giant fibers of the cockroach and the action of anticholinesterases, 1
ROTHENBERG, M. A. See BULLOCK, T. H., 11, 63, and GRUNDFEST, H., 155
RUCH, T. C. See CHANG, H.-T., 39

SAMSON, E. A. See ROEDER, K. D., 1
SARNOFF, S. J. and ARROWOOD, J. G. Differential spinal block. III. The block of cutaneous and stretch reflexes in the presence of unimpaired position sense, 205
SCHALLEK, W. See WIERSMA, C. A. G., 323
SCHOEPFLE, G. M. An interpretation of spinal cord action potentials in terms of volume conductor theory, 339
Sensitivity, color, 303
Sleeping attitude of acute thalamic pigeon, 415
Small-nerve motor system, 383, 395
Sodium cyanide, decerebrate rigidity and, 89
—— fluoroacetate, convulsive activity induced by, 105
SPERRY, R. W. Cerebral regulation of motor coordination in monkeys following multiple transection of sensorimotor cortex, 275
Spinal block and reflexes, 205
—— —— and position sense, 205
—— cord, ACh and synaptic transmission in, 197
—— ——, action potentials of, 339
—— ——, electric activity in, 223
—— ——, injury potentials of, 121
—— ——, monosynaptic pathway of, 251, 349
—— ——, synaptic potentials in, 197
—— ——, vestibular nuclei as excitatory mechanism for, 331
Stimulation, axonal, 211
—— of cingular gyrus, 371
—— during neuromuscular block, 189
——, effect of, on cortical activity, 133
——, effect of, on root potentials, 323
——, electrical, of cerebral cortex, 409
——, preganglionic, 139
——, vagal, 315
Strychninization, effect of, on eyelid reflex, 415
Suppressor areas, 125, 133
Synapse, 1, 23, 139, 251
Syndrome, Rolando's, 415

TEN CATE, J., WALTER, W. G., and KOOPMAN, L. J. Electrical activity in frog spinal cord, 223
TOMAN, J. E. P., WOODBURY, J. W. and WOODBURY, L. A. Mechanism of nerve conduction block produced by anticholinesterases, 429
Transmission, neuromuscular, 189
——, synaptic, 197, 251
——, ——, and acetylcholine, 197

VAN HARREVELD, A. The electroencephalogram after prolonged brain asphyxiation, 361

WADE, M. The effect of sedatives upon delayed response in monkeys following removal of the prefrontal lobes, 57
WALKER, S. M. and LAPORTE, Y. Effects of potassium on the endplate potential and neuromuscular transmission in the curarized semitendinosus of the frog, 79
WALTER, W. G. See TEN CATE, J., 223
WARD, A. A., JR. Convulsive activity induced by fluoroacetate, 105
——. Decerebrate rigidity, 89
——, and MCCULLOCH, W. The projection

of the frontal lobe of the hypothalamus, 309
——. See CHANG, H.-T., 39
WIERSMA, C. A. G. Giant nerve fiber system of the crayfish. A contribution to comparative physiology of synapse, 23
——, and SCHALLEK, W. Potentials from motor roots of the crustacean central nervous system, 323
WOODBURY, J. W. See TOMAN, J. E. P., 429
WOODBURY, L. A. See TOMAN, J. E. P., 429
WYSS, O. A. M. Respiratory effects from stimulation of the afferent vagus nerve in the monkey, 315